

D 350 TRN's HEAT TREATED AT METLAB

TYPE	BATCH #	PO #	CUFF DIA SIDE A TWO READINGS		CUFF DIA SIDE B TWO READINGS		CENTER DIAMETER HEAT TREATING		LENGTH AFTER HEAT TREATING
FWD	B103234	PO20833	2.255"	2.256"	2.261"	2.233"	2.336"	2.331"	112.500"
FWD	B103233	PO20833	2.243"	2.237"	2.252"	2.248"	2.345"	2.328"	112.400"
FWD	B103232	PO20833	2.247"	2.247"	2.251"	2.241"	2.339"	2.329"	112.400"
FWD	B103231	PO20833	2.246"	2.240"	2.254"	2.236"	2.333"	2.330"	112.400"
FWD	B103230	PO20833	2.252"	2.248"	2.253"	2.239"	2.334"	2.331"	112.400"
FWD	B103229	PO20833	2.253"	2.249"	2.254"	2.238"	2.334"	2.329"	112.500"
FWD	B103230	PO20833	2.255"	2.252"	2.258"	2.236"	2.333"	2.330"	112.500"
FWD									
FWD									
FWD									
FWD									
AFT	B103245	PO20833	2.257"	2.247"	2.259"	2.247"	2.294"	2.291"	124.900"
AFT	B103244	PO20833	2.253"	2.246"	2.250"	2.239"	2.299"	2.296"	124.900"
AFT	B103243	PO20833	2.257"	2.246"	2.247"	2.240"	2.304"	2.290"	125.000"
AFT	B103242	PO20833	2.245"	2.243"	2.262"	2.231"	2.300"	2.293"	125.000"
AFT	B103241	PO20833	2.247"	2.244"	2.256"	2.244"	2.295"	2.295"	125.000"
AFT	B103240	PO20833	2.253"	2.249"	2.264"	2.231"	2.300"	2.295"	124.900"
AFT	B103239	PO20833	2.254"	2.254"	2.253"	2.238"	2.303"	2.290"	125.000"
AFT	B103237	PO20833	2.256"	2.252"	2.256"	2.243"	2.297"	2.290"	124.900"
AFT	B97878	PO20833	2.247"	2.245"	2.253"	2.244"	2.303"	2.293"	124.900"
AFT									
AFT									
AFT									

92677
102435

NOTES:

D350-748-241 TRN B97879 Cracked during straightening at heat treating
NCR 13-2982 is created about this tube cracking

*Linda yles are the scrap
+ RA from 1st Run of met Lab*

*97879 - 931.25
102435 - 2160.93
99677 - 924.33
104267 - 768.55*

107255

107254

105540

101337

104289

104281

104267

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Work Order Summary

September-25-13 9:54:23 AM

Page 1 of 2

Criteria : Work Order ID: 97879 Item ID: D350-748-241TRN Product Family CROSSTUBES
 Work Order Start Dates 3/01/13 to 3/01/13 11:59:59 PM Work Order Required Dates 3/15/13 to 3/15/13
 11:59:59 PM

All References
 Work Order Status Released

Work Order ID 97879 Required Qty 1.0000 Status Code Released
 Item ID D350-748-241TRN Accepted Qty 0.0000 Scrap Qty 0.0000
 Item Name Crosstube Turning Detail
 Current Acct Value \$942.531

Start Date 3/01/13 Required Date 3/15/13 Completed Date
 Standard ** Actual ** ** Acct. Value ** ** Variance ** ** Variance % **

Direct Costs	Total	Each	Each	Each	Each
Material	\$178.381	\$0.000	\$199.395	\$199.395	100.00%
Labor	\$170.867	\$0.000	\$162.463	\$162.463	100.00%
Outplant	\$205.000	\$0.000	\$237.932	\$237.932	100.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	100.00%
Fixed Burden	\$377.002	\$0.000	\$358.906	\$358.906	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$931.250	\$0.000	\$958.696	\$958.696	

Item ID/Item Name	Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
PO ID	PO Line Nbr	PO Receiver Date	Domestic Unit Price	PO Receipt Qty	Domestic Certification Standard
D6015-125					
Crosstube Material					
PO Rout Seq ID	PO Vendor ID	VU-MET001	3/23/13	1.0000	\$178.381
PO20833 9	8/28/13 7:37:10 AM	\$205.0000	1.0000	\$205.000	m126725
Total Matl Amts:					\$178.381

Invoice Rout Seq ID Invoice Vendor ID vu-met001

Invoice ID	Invoice Line Nbr	Invoice Date	Invoice Unit Price	Invoice Qty	Invoice Amt
0119608	9	9/01/13 3:22:17 PM	205	1.0000	\$205.000

Work Center Crosstubes

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
LACO01	7/30/13											
150			0.00	0.00	0.42	0.42	1.00	\$0.000	\$7.767	\$17.138	\$0.000	\$24.90
150			0.00	0.00	0.33	0.33	1.00	\$0.000	\$6.086	\$13.429	\$0.000	\$19.51
Total:			0.00	0.00	0.75	0.75	2.00	\$0.000	\$13.854	\$30.567	\$0.000	\$44.42

Work Center Mori Seiki

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
LACO01												
3/24/13												
100			0.00	0.00	2.00	2.00	1.00	\$0.000	\$36.734	\$81.049	\$0.000	\$117.78
100			0.00	0.00	3.34	3.34	1.00	\$0.000	\$61.403	\$135.480	\$0.000	\$196.88
3/25/13												
120			0.00	0.00	3.20	3.20	1.00	\$0.000	\$58.877	\$129.907	\$0.000	\$188.78
Total:			0.00	0.00	8.53	8.53	3.00	\$0.000	\$157.013	\$346.436	\$0.000	\$503.44

Work Order Summary

September-25-13 10:06:29 AM

Page 1 of 1

Criteria : Work Order ID: 104267 Item ID: D350-748-101 Product Family CROSSTUBES
Work Order Start Dates 7/09/13 to 7/09/13 11:59:59 PM Work Order Required Dates 7/09/13 to 7/09/13
11:59:59 PM

All References

Work Order Status Released

Work Order ID	104267	Required Qty	1.0000	Status Code	Released
Item ID	D350-748-101	Accepted Qty	0.0000	Scrap Qty	0.0000
Item Name	Fwd Crosstube				
Current Acct Value	\$4,192.937				

Start Date	7/09/13	Required Date	7/09/13	Completed Date	
Standard	** Actual **	** Acct. Value **	** Variance **	** Variance % **	
Direct Costs	Total	Each	Each	Each	Each
Material	\$0.000	\$0.000	\$390.402	\$390.402	100.00%
Labor	\$129.766	\$0.000	\$513.761	\$513.761	100.00%
Outplant	\$346.641	\$0.000	\$2,529.625	\$2,529.625	100.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$292.129	\$0.000	\$1,099.467	\$1,099.467	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$768.535	\$0.000	\$4,533.254	\$4,533.254	

PO ID	PO Line Nbr	PO Receiver Date	Domestic Unit Price	PO Receipt Qty	Domestic Received Amt	Certification Standard
PO Rout Seq ID		PO Vendor ID	VC-ELP001			
PO21187	2	9/10/13 6:54:49 AM	\$346.6405	1.0000	\$346.641	104267

Invoice Rout Seq ID	Invoice Vendor ID	VC-ELP001
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Invoice ID	Invoice Line Nbr	Invoice Date	Invoice Unit Price	Invoice Qty	Invoice Amt
13139	1	9/04/13 11:07:16 AM	346.6405	1.0000	\$346.641

Work Center CNC Bend 1

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
BERN01		9/03/13										
110			1.98	0.66	0.00	0.00	3.00	\$15.080	\$0.000	\$33.948	\$0.000	\$49.02
		9/04/13										
110			0.00	0.00	0.79	0.79	1.00	\$0.000	\$18.090	\$40.724	\$0.000	\$58.81
110			0.00	0.00	0.69	0.69	1.00	\$0.000	\$15.865	\$35.715	\$0.000	\$51.58
whit01		9/04/13										
110			0.00	0.00	0.73	0.73	1.00	\$0.000	\$16.753	\$37.715	\$0.000	\$54.46
110			0.00	0.00	2.80	2.80	1.00	\$0.000	\$63.978	\$144.026	\$0.000	\$208.00
Total:			1.98	0.66	5.01	5.01	7.00	\$15.080	\$114.686	\$292.129	\$0.000	\$421.89

September-25-13 10:06:29 AM

Work Order Summary

Page 1 of 1

Work Order Summary

September-25-13 9:57:32 AM

Page 1 of 2

Criteria : Work Order ID: 103233 Item ID: D350-748-141TRN Product Family CROSSTUBES
Work Order Start Dates 6/19/13 to 6/19/13 11:59:59 PM Work Order Required Dates 7/03/13 to 7/03/13
11:59:59 PM

All References
Work Order Status Released

Work Order ID 103233 Required Qty 1.0000 Status Code Released
Item ID D350-748-141TRN Accepted Qty 0.0000 Scrap Qty 0.0000
Item Name Crosstube Turning Detail
Current Acct Value \$807.803

Start Date 6/19/13 Required Date 7/03/13 Completed Date

Standard ** Actual ** ** Acct. Value ** ** Variance ** ** Variance % **

Direct Costs	Total	Each	Each	Each	Each
Material	\$0.000	\$0.000	\$174.268	\$174.268	100.00%
Labor	\$159.083	\$0.000	\$134.636	\$134.636	100.00%
Outplant	\$205.000	\$0.000	\$200.676	\$200.676	100.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$351.001	\$0.000	\$291.448	\$291.448	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$715.084	\$0.000	\$801.029	\$801.029	

PO ID	PO Line Nbr	PO Receiver Date	Domestic Unit Price	PO Receipt Qty	Domestic Received Amt	Certification Standard
PO Rout Seq ID		PO Vendor ID	VU-MET001			
PO20833	5	8/28/13 7:37:10 AM	\$205.0000	1.0000	\$205.000	m126725

Invoice Rout Seq ID Invoice Vendor ID vu-met001

Invoice ID	Invoice Line Nbr	Invoice Date	Invoice Unit Price	Invoice Qty	Invoice Amt
0119608	5	9/01/13 3:22:17 PM	205	1.0000	\$205.000

Work Center Crosstubes

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
BERN01		7/29/13										
150			0.00	0.00	1.34	1.34	1.00	\$0.000	\$24.741	\$54.589	\$0.000	\$79.33
Total:			0.00	0.00	1.34	1.34	1.00	\$0.000	\$24.741	\$54.589	\$0.000	\$79.33

Work Center Mori Seiki

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
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7/07/13

September-25-13 9:57:32 AM

Work Order Summary

Page 1 of 2

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Work Order Summary

September-23-13 7:56:51 AM

Page 1 of 1

Criteria : Work Order ID: 99677 Item ID: D350-748-101 Product Family CROSSTUBES
Work Order Start Dates 4/11/13 to 4/11/13 11:59:59 PM Work Order Required Dates 4/11/13 to 4/11/13
11:59:59 PM

Reference: scrap

Work Order Status Complete

Work Order ID	99677	Required Qty	1.0000	Status Code	Complete
Item ID	D350-748-101	Accepted Qty	0.0000	Scrap Qty	0.0000
Item Name	Fwd Crosstube				
Current Acct Value	\$4,192.937				
Start Date	4/11/13	Required Date	4/11/13	Completed Date	9/23/13 7:55:42 AM

Standard	** Actual **		** Acct. Value **	** Variance **	** Variance % **
<u>Direct Costs</u>	<u>Total</u>	<u>Each</u>	<u>Each</u>	<u>Each</u>	<u>Each</u>
Material	\$176.632	\$0.000	\$371.843	\$371.843	100.00%
Labor	\$170.073	\$0.000	\$455.157	\$455.157	100.00%
Outplant	\$203.162	\$0.000	\$1,491.475	\$1,491.475	100.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$374.470	\$0.000	\$965.241	\$965.241	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$924.337	\$0.000	\$3,283.715	\$3,283.715	

Item ID/Item Name	Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
D350-748-141TRN					
Crosstube Turning Detail					
	1.0000		9/23/13	1.0000	\$807.803
			Total Matl Amts:		\$807.803

Work Center CNC Bend 1

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor	Nbr of W/Os	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
BERN01		9/04/13										
110			0.00	0.00				1.000	\$17.893	\$40.281	\$0.000	\$58.17
whit01		9/04/13										
110			0.00	0.00				0.000	\$17.950	\$40.410	\$0.000	\$58.36
Total:			0.00	0.00				\$0.000	\$35.843	\$80.691	\$0.000	\$116.53

2 other Bld's - Eric D. charge to Method

Linda Lacelle

From: Mark Podob <mpodob@metlabheattreat.com>
Sent: September-17-13 5:02 PM
To: Linda Lacelle
Cc: Chantal Lavoie; Nigel Forbes; Brigitte Golden; Patrick Smith; Dan Krackovic
Subject: RE: PO21265 Documents

Linda –

We are planning on having these ready to ship on Thursday, Friday latest.

In checking the parts, it seems that they were a little too hard – HRC 51, where your specification calls for HRC 45 tops.

The parts that you have which were not broken can be returned to us for tempering to the appropriate hardness range, so I would not consider them scrap.

Sure, we can credit you for the heat treatment on the four broken pieces, and I will take off the amount on when we invoice this new shipment.

Let me know the cost of the tubes, and I will discuss internally how far our liability will go for the material.

More importantly, we need to put some more checks and balances in place to make sure this does not happen again.

Since the parts are thermocoupled we know that temperature uniformity is there – still need to do some investigation, but taking hardness in several areas on several tubes is going to be key, as not the entire tube was too hard.

Sorry for rambling – but working still trying to figure out how these left here out of specification.

I assume that Pat will send us a CAR?

Mark Podob
Vice President, Marketing and Sales
Metlab
1000 E. Mermaid Lane
Wyndmoor, PA 19038
215-233-2600 Ext. 232
(F) 215-233-5653
mpodob@metlabheattreat.com

ED
B/N's

This message and any attachments are intended for the individual or entity named above. If you are not the intended recipient, please do not forward, copy, print, use or disclose this communication to others; also please notify the sender by replying to this message and then delete it from your system.

From: Linda Lacelle [<mailto:llacelle@dartaero.com>]
Sent: Tuesday, September 17, 2013 10:06 AM
To: Mark Podob
Cc: Chantal Lavoie; Nigel Forbes; Brigitte Golden; Patrick Smith
Subject: RE: PO21265 Documents
Importance: High

Hi Mark,

September-23-13 7:56:08 AM

Criteria : Work Order ID: 102435 Item ID: D350-748-101 Product Family CROSSTUBES
Work Order Start Dates 5/27/13 to 5/27/13 11:59:59 PM Work Order Required Dates 5/27/13 to 5/27/13 11:59:59 PM

Reference: scrap
Work Order Status Complete

Work Order ID	102435	Required Qty	1.0000	Status Code	Complete
Item ID	D350-748-101	Accepted Qty	0.0000	Scrap Qty	0.0000
Item Name	Fwd Crosstube				
Current Acct Value	\$4,192.937				
Start Date	5/27/13	Required Date	5/27/13	Completed Date	9/23/13 7:55:34 AM

Standard	** Actual **	** Acct. Value **	** Variance **	** Variance % **
<u>Direct Costs</u>	<u>Total</u>	<u>Each</u>	<u>Each</u>	<u>Each</u>
Material	\$176.632	\$0.000	\$372.046	100.00%
Labor	\$262.697	\$0.000	\$467.142	100.00%
Outplant	\$1,138.616	\$0.000	\$1,644.304	100.00%
Variable Burden	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$582.985	\$0.000	\$988.654	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$2,160.930	\$0.000	\$3,472.145	

Item ID/Item Name		Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
PO ID	PO Line Nbr	PO Receiver Date	Domestic Unit	PO Receipt Qty	Domestic	Certification Standard
D350-748-141TRN			Price		Received Amt	
Crosstube Turning Detail						
PO Rout Seq ID		PO Vendor ID	VC-MET004			
		1.0000		9/23/13	1.0000	\$807.803
PO21188	1	9/18/13 11:49:34 AM	\$935.4545	1.0000	\$935.455	
Total Matl Amts:						\$807.803

Invoice Rout Seq ID	Invoice Vendor ID	VC-MET004
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Invoice ID	Invoice Line Nbr	Invoice Date	Invoice Unit Price	Invoice Qty	Invoice Amt
9-297612	1	9/06/13 9:30:45 AM	935.4545	1.0000	\$935.455

Work Center CNC Bend 1

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
BERN01												
	9/03/13											
110			1.98	0.66	0.00	0.00	3.00	\$15.093	\$0.000	\$33.977	\$0.000	\$49.07
9/04/13												
110			0.00	0.00	2.48	2.48	1.00	\$0.000	\$56.696	\$127.635	\$0.000	\$184.33
whit01												
	9/04/13											
110			0.00	0.00	2.48	2.48	1.00	\$0.000	\$56.678	\$127.593	\$0.000	\$184.27
Total:			1.98	0.66	4.95	4.95	5.00	\$15.093	\$113.374	\$289.205	\$0.000	\$417.67